

**In the claims:**

Claims 1 to 15 (cancelled)

16. (New) An interferometric coupler for controlling radiation proceeding therethrough, the coupler comprising:

- at least one input for conveying radiation incident to the coupler;
- a first amplifying part optically coupled to the at least one input for amplifying the incident radiation;
- a second transparent part optically coupled to the first part to guide radiation previously amplified in the first part; and
- at least two outputs optically coupled to the second part for conveying radiation from the coupler.

17. (New) An integrated optical device comprising:

- an optical pre-amplifier receiving input radiation;
- an interferometric coupler optically coupled to and receiving radiation from the pre-amplifier, the coupler comprising:
  - a first amplifying part for amplifying the radiation received from the pre-amplifier;
  - a second transparent part optically coupled to the first part to guide radiation previously amplified in the first part; and
  - a first and a second output optically coupled to the second part for conveying amplified radiation from the coupler;
  - a first optical amplifier optically coupled to the first output;
  - a second optical amplifier optically coupled to the second output; and
  - a 2x2 optical coupler optically coupled to the first and the second optical amplifiers.